

WHAT IS CLAIMED IS:

1. A head assembly comprising:

a support member;

a head slider; and

a piezoelectric actuator set disposed between the support member and the head slider for establishing a standard attitude of the head slider when supply of an electric signal is cut off, wherein

said piezoelectric actuator set generates a couple changing an attitude of the head slider around a rotational axis only in a predetermined direction.

2. The head assembly according to claim 1, wherein said piezoelectric actuator set includes:

a first elongated piezoelectric actuator shrinking in a first direction upon supply of the electric signal; and

a second elongated piezoelectric actuator shrinking in a second direction, antiparallel to the first direction, upon supply of the electric signal.

3. The head assembly according to claim 2, wherein said first and second elongated piezoelectric actuators are located symmetric to each other around the rotational axis.

4. The head assembly according to claim 1, wherein said piezoelectric actuator set includes:

a first elongated piezoelectric actuator extending in a first direction, a base end of the first elongated piezoelectric actuator being attached to the support member, a tip end of the first elongated piezoelectric actuator being attached to the head slider; and

a second elongated piezoelectric actuator extending in a second direction antiparallel to the first direction, a base end of the second elongated piezoelectric actuator being attached to the support member, a tip end of the second elongated piezoelectric actuator being attached to the head slider.

5. The head assembly according to claim 4, wherein said first and second elongated piezoelectric actuators are located symmetric to each other around the rotational axis.

6. The head assembly according to claim 5, further comprising:

first outside electrodes connected to the base ends of the first and second elongated piezoelectric actuators, respectively; and

second outside electrodes extending from the tip ends toward the base ends along surfaces of the first and second elongated piezoelectric actuators, respectively.

7. The head assembly according to claim 6, wherein each of said first and second elongated piezoelectric actuators comprises:

first inside electrode layers connected to the first outside electrode at outer ends of the first inside electrode layers near the base end of the elongated piezoelectric actuator, said first inside electrode layers extending from the outer ends toward the tip end of the elongated piezoelectric actuator;

second inside electrode layers each disposed between adjacent ones of the first inside electrode layers and connected to the second outside electrode at outer ends of the second inside electrode layers near the tip end of the elongated

piezoelectric actuator, said second inside electrode layers extending from the outer ends toward the base end of the elongated piezoelectric actuator; and

active piezoelectric transducer layers interposed between the first and second inside electrode layers.

8. The head assembly according to claim 7, wherein said active piezoelectric transducer layer is made from PNN-PT-PZ.

9. The head assembly according to claim 8, wherein each of the first and second elongated piezoelectric actuators further comprises an inactive piezoelectric transducer layer superposed over an outer surface of at least one of the first and second inside electrode layers between the trailing and tip ends of the elongated piezoelectric actuator.

10. The head assembly according to claim 9, wherein said inactive piezoelectric transducer layer is made from PNN-PT-PZ.

11. A recording medium drive comprising:

a swinging arm;

a head suspension extending forward from a front end of the swinging arm;

a head slider; and

a piezoelectric actuator set disposed between the head suspension and the head slider for establishing a standard attitude of the head slider when supply of an electric signal is cut off, wherein

said piezoelectric actuator set generates a couple changing an attitude of the head slider around a rotational axis only in a predetermined direction.

12. The recording medium drive according to claim 11, wherein said piezoelectric actuator set includes:

a first elongated piezoelectric actuator shrinking in a first direction upon supply of the electric signal; and

a second elongated piezoelectric actuator shrinking in a second direction, antiparallel to the first direction, upon supply of the electric signal.

13. The recording medium drive according to claim 12, wherein said first and second elongated piezoelectric actuators are located symmetric to each other around the rotational axis.

14. The recording medium drive according to claim 11, wherein said piezoelectric actuator set includes:

a first elongated piezoelectric actuator extending in a first direction, a base end of the first elongated piezoelectric actuator being attached to the head suspension, a tip end of the first elongated piezoelectric actuator being attached to the head slider; and

a second elongated piezoelectric actuator extending in a second direction antiparallel to the first direction, a base end of the second elongated piezoelectric actuator being attached to the head suspension, a tip end of the second elongated piezoelectric actuator being attached to the head slider.

15. The recording medium drive according to claim 14, wherein said first and second elongated piezoelectric actuators are located symmetric to each other around the rotational axis.

16. The recording medium drive according to claim 15, further comprising:

first outside electrodes connected to the base ends of the first and second elongated piezoelectric actuators, respectively; and

second outside electrodes extending from the tip ends toward the base ends along surfaces of the first and second elongated piezoelectric actuators, respectively.

17. The recording medium drive according to claim 16, wherein each of said first and second elongated piezoelectric actuators comprises:

first inside electrode layers connected to the first outside electrode at outer ends of the first inside electrode layers near the base end of the elongated piezoelectric actuator, said first inside electrode layers extending from the outer ends toward the tip end of the elongated piezoelectric actuator;

second inside electrode layers each disposed between adjacent ones of the first inside electrode layers and connected to the second outside electrode at outer ends of the second inside electrode layers near the tip end of the elongated piezoelectric actuator, said second inside electrode layers extending from the outer ends toward the base end of the elongated piezoelectric actuator; and

active piezoelectric transducer layers interposed between the first and second inside electrode layers.

18. The recording medium drive according to claim 17, wherein said active piezoelectric transducer layer is made from PNN-PT-PZ.

19. The recording medium drive according to claim 18, wherein each of the first and second elongated piezoelectric actuators further comprises an inactive piezoelectric transducer layer superposed over an outer surface of at least one of the first and second inside electrode layers between the trailing and tip ends of the elongated piezoelectric actuator.

20. The recording medium drive according to claim 19, wherein said inactive piezoelectric transducer layer is made from PNN-PT-PZ.

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